IN THE SPECIFICATION:

Please amend the specification as follows:

Please amend the paragraph beginning at page 1, line 24, and ending on page 2, line 10, as follows.

-- An ArF excimer laser with an oscillation wavelength around far infrared rays, particularly, 193 nm, and a fluorine (F_2) excimer laser with an oscillation wavelength around 157 nm are known to have absorption bands for oxygen (O_2) and moisture (H_2O). Therefore, in the optical path of the exposure optical system of a projection exposure apparatus using a far ultraviolet laser such as an ArF excimer laser or a fluorine (F_2) excimer laser as a light source, the oxygen and moisture concentration (to be referred to as an impurity concentration hereinafter) present in the optical path must be suppressed to a low level of ppm order or less by a purge means using inert gas such as nitrogen. --

Please amend the paragraph beginning at page 7, line 16, as follows.

-- The impurities (to be referred [[go]] to as released gas hereinafter) generated during exposure by the photosensitive agent itself applied to the wafer and by the moisture adsorbed by the surface of the photosensitive agent are recovered by the one-directional flow of the purge gas inside the cover 109. Due to the flow of the purge gas, the released gas forms a concentration gradient inside the cover 109. As the exposure light is absorbed by the released gas, as well, a

transmittance loss distribution is formed in the exposure area due to the concentration gradient of the released gas. --

Please amend the paragraph beginning at page 19, line 14, and ending on page 20, line 3, as follows.

-- The supply port 6 uses a porous plate having, e.g., small holes, at constant pitches, or a porous body such as a sintered material, foamed material, or fiber material made of a metal, resin, or mineral, which is utilized in a filter, or the like, so that the purge gas flowing through the pipe 30 is straightened. The recovery port 7 also uses a porous plate or porous body, in the same manner as the supply port 6 does, so that the flow of the purge gas in the vicinity of the recovery port 7 is straightened. Straightening of the purge gas with the porous plate or porous body aims ~~at uniforming~~ to make uniform the flow velocity distribution of the purge gas in the plane of the supply port 6 or recover port 7, and ~~uniforming~~ to make uniform fluctuations in the flow velocity along the time axis by suppressing disturbance of the flow, so that the flow forms a laminar flow more and that a stable purging performance can be obtained. --

Please amend the paragraph beginning at page 23, line 9, and ending on page 24, line 2, as follows.

-- As shown in Figs. 10A and 10B, when the supply port 6 is arranged such that the purge gas flows parallel to the scanning direction of exposure, scanning can make uniform the transmittance loss distribution in the exposure area. The transmittance loss in the scanned area

becomes uniform, and no illuminance nonuniformity occurs. As shown in Figs. 10C and 10D, when the supply port 6 is arranged such that the purge gas flows perpendicularly to the scanning direction of exposure, scanning cannot make uniform the transmittance loss distribution in the exposure area. A transmittance loss distribution is formed also in the scanned area, and illuminance nonuniformity occurs. Therefore, to prevent illuminance nonuniformity during scanning, the flowing direction of the purge gas is preferably set to be parallel to the scanning direction. Then, the exposure amount obtained in the scanning area becomes uniform. No defective product will occur among the manufactured semiconductor devices. As a result, the high productivity of the apparatus can be maintained. --

Please amend the paragraph beginning at page 25, line 16, as follows.

-- In the second embodiment, the influence of the gas, supplied from the outside of the cover 9, on purging, is decreased. --

Please amend the paragraph beginning at page 28, line 5, and ending on page 29, line 7, as follows.

-- Figs. 5A and 5B are schematic contour diagrams of the pressure distribution in the vicinity of the cover 9, which is formed when the supply port 6 is arranged such that the direction of the flow of the gas (ambient flow 19) blowing out through the blow-out port 16 and the direction of the flow of the purge gas blowing out through the supply port 6 are just opposite to each other. In the schematic contour diagrams of Figs. 5A and 5B, the darker the color, the

higher the pressure; the lighter the color, the lower the pressure. Referring to Fig. 5A as the sectional view taken at the center of the cover 9 and Fig. 5B as the plan view, the purge gas blows out through the supply port 6 in the direction of arrows (8) toward the vicinity of a wafer 11. Part of the blowing purge gas is drawn by suction through the recovery port 7, and the remaining gas flows out to the portion around the cover 9 through the gap between the cover 9 and wafer 11. When the supply port 6 is arranged such that the ambient flow 19 and the purge gas flow 8 are just opposite to each other, that portion inside the cover 9 where the pressure is the highest and that portion outside the cover 9 where the pressure is the highest oppose each other, as shown in Figs. 5A and 5B. Therefore, the flow of the purge gas inside the cover 9 serves as a resistance against air or purge inert gas with a high impurity concentration entering from the periphery. As a result, air or purge gas with a high impurity concentration does not enter from the periphery, and the inside of the cover 9 can be stably purged ~~stably~~. --

Please amend the paragraph beginning at page 31, line 27, and ending on page 32, line 14, as follows.

-- Preferably, the gas blowing out through the blow-out port (16) is formed of air, or inert gas having a higher impurity concentration than the purge gas. The role of the gas blowing out through the blow-out port 16 toward the space in the vicinity of the wafer stage is to maintain the temperature, humidity, and the like, around the wafer stage to predetermined values. Hence, the gas, which is to blow out through the blow-out port 16, need not be one having a high impurity

like purge gas, but can be air, or inert gas having a higher impurity concentration than the purge gas. --

Please amend the paragraph beginning at page 34, line 9, as follows.

-- At this time, the control information is transmitted from the main control system 43 to the flow controller 41 such that the flow rate of the purge gas recovered through the recovery port 7 is ~~smaller~~ less than the total flow rate of the flow rate of the purge gas supplied through the supply port 6 and the flow rate of the purge gas supplied through the sub-supply port 12. Hence, part of the purge gas supplied through the sub-supply port 12 flows to inside the cover 9 to prevent generation of a whirl in the vicinity of the lower side of the supply port 6. The remaining purge gas flows out to the periphery of the cover 9 through the gap between the cover 9 and wafer 11, and serves as a resistance against air or purge inert gas with a high impurity concentration that enters [[to]] inside the cover 9. Therefore, as shown in Figs. 7A and 7B, a pressure P3 inside the cover 9 is ~~uniformed~~ made uniform and becomes much higher than a pressure P2 outside the cover 9, so that the inside of the cover 9 can be stably purged ~~stably~~. --

Please amend the paragraph beginning at page 35, line 1, as follows.

-- In the third embodiment, the flow rates at the supply port 6, sub-supply port 12, and recovery port 7 are controlled, respectively. Alternatively, the pressure at either one or two ports may be maintained at constant values so that the flow rates there may be fixed to preset values,

and the flow rate at the remaining port may be controlled on the basis of the control information. --

Please amend the paragraph beginning at page 39, line 11, as follows.

-- In the exposure apparatus of the fourth embodiment, the supply port 6 is formed such that the ambient flow 19 and a purge gas flow 8 are just opposite to each other. Control information is transmitted from a main control system 43 to a flow controller 41 such that the flow rate of the purge gas recovered through the recovery port 7 is ~~smaller~~ less than the total flow rate of the flow rate of the purge gas supplied through the supply port 6 and the flow rate of the purge gas supplied through the sub-supply port 12. As shown in the second embodiment, if the supply port 6 is formed such that the ambient flow 19 and purge gas flow 8 are just opposite to each other, the inside of the cover 9 can be stably purged ~~stably~~. If the sub-supply port 12 is formed in the lower end of the cover 9 in the vicinity of the supply port 6, the inside of the cover 9 can be more stably purged ~~more stably~~. --

Please amend the paragraph beginning at page 43, line 14, and ending on page 44, line 3, as follows.

-- Figs. 15A and 15B are diagrams for explaining the arrangement of an exposure apparatus according to the fifth embodiment. A supply port 6 and recovery port 7 are formed inside a cover 9. Also, sub-supply ports 12 are formed in the lower end of the cover 9 in the vicinities of the supply port 6 and recovery port 7. Except that another sub-supply port 12 is

formed in the lower end of the cover 9 in the vicinity of the recovery port 7, the fifth embodiment is the same as the fourth embodiment. Hence, Figs. 15A and 15B show the arrangement of the main port of only the vicinity of a wafer. In Fig. 15A, as a sectional view, and Fig. 15B, as a plan view, the same reference numerals as those in Fig. 14 denote the same constituent elements. The flow rate control and a purging method inside the cover 9 of the fifth embodiment are shown in Figs. 1 to 4, and a description thereof will be omitted. --

Please amend the paragraph beginning at page 51, line 18, as follows.

-- According to the above arrangement, the purge gas supplied through the first supply port (6) forms a flow toward the second recovery port (25), to prevent a whirl from being generated in the vicinity of the lower side of the supply port (6). At this time, as shown in Fig. 19B, the pressure does not decrease in the vicinity of the lower side of the first supply port (6). The pressure P3 inside the cover (9) is ~~uniformed~~ made uniform and can be set to be higher than the outer pressure P2, so that the inside of the cover 9 can be stably purged ~~stably~~. --

Please amend the paragraph beginning at page 53, line 2, as follows.

-- The effect obtained when the sub-recovery ports 25 are formed on the front and rear sides of the exposure area to be parallel to the scanning direction will be described with reference to Figs. 21A and 21B. Fig. 21A is an enlarged diagram of the vicinity of the cover 9 having the recovery port 7 in a case wherein the sub-recovery ports 25 are formed, and is a schematic diagram of the flow during scanning. In Fig. 21A, scanning is performed in the direction from

the positive side to the negative side along the Y-axis. Fig. 21B is a schematic contour diagram of the impurity concentration taken at the same location as that of Fig. 21A. In the schematic contour diagram of Fig. 21B, the darker the color, the higher the impurity concentration; the lighter the color, the lower the impurity concentration. As shown in Fig. 21A, even if a flow directed from the periphery of the cover 9 toward the inside of the cover 9 is formed due to the flow on the surface of the wafer, since the sub-recovery port 25 is formed, the impurities can be recovered. Therefore, the impurities do not enter from ~~the~~ outside of the cover 9, as shown in Fig. 21B, and the inside of the cover 9 can be stably purged ~~stably~~. --

Please amend the paragraph beginning at page 63, line 25, as follows.

-- [Application to a Semiconductor Manufacturing Apparatus] --

Please amend the paragraph beginning at page 63, line 26, and ending on page 64, line 4, as follows.

-- An embodiment of a device manufacturing method using the above-described exposure apparatus will be explained. Fig. 24 shows a manufacturing flow for a microdevice (e.g., a semiconductor chip such as an IC or LSI, a liquid crystal panel, a CCD, a thin film magnetic head, a micromachine, or the like). --

Please amend the paragraph beginning at page 64, line 5, as follows.

-- In step 101 (circuit design), the circuit of a semiconductor device is designed. In step 102 (mask fabrication), a mask having the designed circuit pattern is fabricated. In step 103 (wafer manufacture), a wafer is manufactured using a material such as silicon. In step 104 (wafer process), called a preprocess, an actual circuit is formed on the wafer by lithography using the prepared mask and wafer. In step 105 (assembly), called a post-process, a semiconductor chip is formed by using the wafer fabricated in step 104. This step includes processes such as assembly (dicing and bonding) and packaging (chip encapsulation). In step 106 (inspection), inspections including an operation check test and a durability test of the semiconductor device fabricated in step 105 are performed. A semiconductor device is completed with these steps, and is shipped (step 107). --